

426/28

AVERAGES

1882

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124 DISTILLATION
Preparing Grain.

RECORDED

A.D. 1882, 15th AUGUST. N° 3896.

Brewing.

LETTERS PATENT to Lionel Varicas, of 2 Montague Place, Russell Square, London, in the County of Middlesex, England for an invention of IMPROVEMENTS IN THE ART OF BREWING MALT LIQUORS A communication from abroad by Joseph Franklin Gent, of the City of Columbus, in the County of Bartholomew, in the State of Indiana, one of the United States of America, a miller by occupation,

COMPLETE SPECIFICATION filed by the said Lionel Varicas at the Office of the Commissioners of Patents on the 15th August 1882,

LIONEL VARICAS, of 2 Montague Place, Russell Square, London, in the County of Middlesex, England, "IMPROVEMENTS IN THE ART OF BREWING MALT LIQUORS,"
 5 A communication from abroad by Joseph Franklin Gent, of the city of Columbus, in the County of Bartholomew, in the State of Indiana, one of the United States of America, a miller by occupation,

In the art of brewing malt-liquors it has been customary for many years to use a percentage, more or less, of maize-meal in the production of the wort, such maize-meal being ground either from maize having the husk and germ attached, or from the maize from which the husk and germ have been previously removed. Both said kinds of maize-meal require to be thoroughly boiled and mashed to a accomplish the required reduction, and the comparatively long boiling injures the mash. The subsequent fermentation of the wort obtained from the malt, maize-meal, and hops is also less satisfactory than could be desired. It has been
 10 discovered that these objection may be overcome, and the whole process of brewing vastly improved, by using in place of such maize-meal, a maize-product consisting of hullless maize-flakes, which is termed maize-malt.

In order that this invention or discovery may be clearly understood and readily
 20 practiced by those skilled in the art of brewing malt-liquors I will proceed to describe the rule which has unusually governed heretofore in its practice and describe the manufacture of the hullless maize-malt to be used.

The maize-malt is made as follows: The maize having first been thoroughly winnowed is passed through a suitable mill for removing the hulls and germs and
 25 granulating the remaining portions of the kernels. The purified granular material

[Price 2d.]

Varicas' Improvements in Brewing.

is then subjected to a steaming action in any suitable vessel to effect a softening and toughening of the granules. The damp mass, suitably drained or otherwise treated to free it from the greater part of its moisture, is then passed through between warm rollers, which will simultaneously dry and flatten the granules, so that the resulting product will be in the form of dry flakes. 5

The percentage of this maize-malt to be used will necessarily vary according as the brewer desires to make one quality or another of malt-liquor. As high as 65 % by weight, of it to 35 % by weight of barley-malt may be used. The maize-malt is mixed with the barley-malt and the mixture is steeped and mashed precisely the same as if barley-malt alone were used. No previous boiling and mashing of this maize-malt is required, because its proper reduction is as easily and rapidly accomplished as the reduction of the barley-malt. 10

Hops having been added to the mash and steeped with it according to the ordinary method, the wort is drawn off, and subsequently treated the same as the wort in brewing as heretofore practiced. 15

It has been found in practice that the yield of extract from a given amount of this maize-malt greatly exceeds the yield of extract from a quantity of maize-meal (whether ground from hulled or unhulled maize) of the aggregate cost. Besides previous boiling and mashing is dispensed with. All but about 10 % of it is reduced and converted. It has been found furthermore, that the fermentation of the wort containing an admixture of extract from the maize-malt is much more uniform and perfect as compared with that of wort containing an admixture of extract from maize-meal. 20

Having thus described this improvement on the art of brewing malt-liquors I beg to disclaim all other methods or processes known and practiced in the art prior to my invention. 25

What is claimed is

The improvement in the art of brewing malt-liquors which consists in producing the wort from barley-malt, hops, and hulless maize-malt substantially as before set forth. 30

In witness whereof I, the said Lionel Varicas, have hereunto set my hand and seal this fifteenth (15th) day of August, in the year of Our Lord One thousand eight hundred and eightytwo.

LIONEL VARICAS. (L.S.)

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